



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,911	02/03/2004	Ruprecht Kroker	248425US0DIV	9770

22850 7590 08/22/2006

C. IRVIN MCCLELLAND
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

PUTTLITZ, KARL J

ART UNIT	PAPER NUMBER
----------	--------------

1621

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/769,911	Applicant(s) KROKER ET AL.	
	Examiner Karl J. Puttlitz	Art Unit 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/334,000.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/3/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed, i.e., an apparatus.

A cross reference to the continuing data of the parent application and counterpart PCT application is required in the first sentence of the specification.

The specification requires a Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.

Information Disclosure Statement

The information disclosure statement filed 2/3/2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document, which are missing, and have not been considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "or second" in claim 16 and the term "the second section" in claim 17 lack antecedent basis.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 11-17 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent No. 5,931,579 to Gallus et al. (Gallus).

The rejected claims are drawn to a reactor which is divided into a plurality of sections which are separated from one another by dividing walls each having at least one orifice and which has a nozzle extending into the first section means for feeding in and removing the substances involved and means for controlling the temperature in the sections.

The rejected claims also cover those embodiments wherein the dividing walls each have an orifice which is present substantially in the center of the dividing wall.

The rejected claims also cover those embodiments wherein the nozzle used is a jet nozzle, mixing nozzle or binary nozzle.

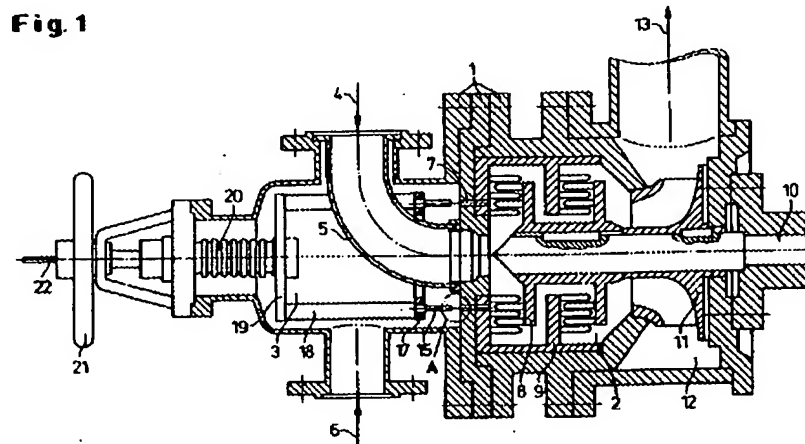
The rejected claims also cover those embodiments wherein an annular tube having a plurality of outlet orifices and a line for feeding in a starting material is provided in the region of the bottom in the first section.

The rejected claims also cover those embodiments wherein the volume of the first section is greater than that of the remaining sections and accounts for from 25 to 50% of the total reactor volume.

The rejected claims also cover those embodiments wherein the first and/or second section is equipped with static mixing elements.

The rejected claims also cover those embodiments wherein a nozzle for mixing the content of the second section is provided and is arranged in such a way that its outlet orifice is present in the orifice roughly in the plane of the dividing wall.

With regard to the above embodiments, Gallus teaches a mixer reactor in connection with the following figures:

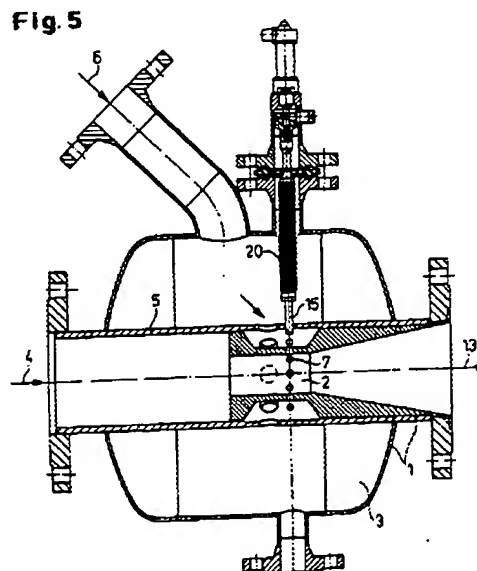


wherein two flows or substances are present, the mixer-reactor, which is represented as an axial section in FIG. 1, consists of a casing 1, which contains a mixing chamber 2 and a distribution chamber 3. The first material flow 4 is introduced axially into the mixing chamber 2 through a bent duct 5 which passes laterally into the

Art Unit: 1621

wall of the distribution chamber. The second material flow 6 is introduced into the distribution chamber 3 and enters the mixing chamber 2 through a plurality of parallel nozzle bores 7 concentric to the axis of the mixer-reactor. The mixing chamber 2 contains rotor elements 8 driven on an axis 10 and stator elements 9 connected to the casing. A rotor disc 11 is also provided, which conveys the mixture through the annular channel 12 into the outlet duct 13. According to the present invention, bolts 15 are provided, which are allocated to each nozzle 7 and attached to a supporting ring 17. The supporting ring 17 is connected via a spacer block 18 to a plate 19, which is axially displaceable on an axis 22 by means of a handwheel 21. The passage of the axis 22 through the wall of the distribution chamber 3 is encapsulated so as to be gas-tight, for example, by welded expansion bellows 20. See column 3, lines 25-47.

Gallus also describes the invention in Figure 5:



Art Unit: 1621

The above figure shows the axial section through the mixer-reactor according to the invention, with the mixing chamber 2 being constructed in the form of a Venturi tube. The distribution chamber 3 is arranged concentrically around the mixing chamber 2. The nozzles 7 run radially into the mixing chamber 2. Corresponding with this, the bolts 15 are individually radially displaceable into and out of each nozzle 7 along a path sealed by bellows 20.

With regard to the required means for controlling the temperature, the walls of the respective chambers can control temperature.

The foregoing anticipates the rejected claims within the meaning of section 102.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl J. Puttlitz whose telephone number is (571) 272-0645. The examiner can normally be reached on Monday to Friday from 9 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page, can be reached at telephone number (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karl J. Puttlitz
Assistant Examiner